

REMARKS

Claims 1-11 and 20 have been canceled. New claim 22 has been added. Claims 12-19 and 21-22 are currently pending in this application. Applicants respectfully request allowance of the present application in view of the foregoing amendments and remarks.

Claims 12-17 were rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The Examiner contends that the claimed element “independent actuating arrangement controlled by centrifugal” is not shown in the drawings or described in the specification. Applicants have deleted this limitation from Claim 12.

Claims 18-21 had been rejected as being anticipated by Kreis. Applicants note that Claim 12 includes the limitation that “the feeding opening of the feed passage is radially further on the inside than an outlet opening of the discharge passage.” Applicants further note that Kreis is wholly silent as to this limitation. *See e.g.* FIG. 1 of Kreis, namely the inlet and outlet arrows 6 and 12, conduit 7, and col. 2, lines 58-66, wherein the feeding opening of any feed passage is not shown or described as being radially further on the inside than an outlet opening of a discharge passage. The benefits of this claimed structure are pointed out at page 4, paragraph [0017] of the Substitute Specification of the present application:

Since the feeding opening for the cooling fluid lies radially further on the inside than the outlet opening, greater peripheral speeds prevail at the outlet opening than at the feeding opening, so that a suction is produced at the outlet openings in the flow passage and produces a fluid flow in the interior of the rotor. In addition, the fluid in the interior of the rotor flows outward in accordance with a centrifuge due to the centrifugal force acting on the fluid, which additionally accelerates the flow of the fluid outward in the interior of the rotor.

Accordingly, Applicants submit that Claim 12 is now in condition for allowance. An early indication of the same is solicited.

Applicants have added new Claim 22, which requires that the fluid flow is influenced by a shutoff element that is actuated as a function of the speed of the rotor shaft. Applicants note that the actuating element 10 is depicted in FIG. 1 and is described at page 8, paragraph [0037] of the Substitute Specification, which states: “...the feed passage 4 ends at a shutoff element 10, which

is actuated as a function of the speed of the rotor shaft 2 via an actuating mechanism which is arranged in the rotor shaft 2...” Thus, the shutoff element is fully described in the specification and shown in the drawings

Regarding Claims 18-21, Claims 18-21 were rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,525,032 to Kreis et al. (Kreis). Claim 18 has been amended herein to require “flowing a cooling flow through the rotor of the turbo-machine during a rotary operation following a load operation of the turbo-machine, wherein said flowing comprises opening a feed passage of the rotor when the speed of the rotor is below a predetermined value.” As amended, Claim 18 is patentable over Kreis because Kreis is wholly silent as to opening a feed passage of a rotor when the speed of the rotor is below a predetermined value as claimed. Instead, Kreis only generally discloses that “[o]ne must distinguish whether the shaft must be heated or cooled compared to the stator in the respective operating state.” Further, Kreis teaches conditioning the shaft “by means of a system of internal conduits with a hot or cool medium.” See col. 1, lines 49-59. From a reading of Kreis, one skilled in the art would believe that the shaft is either heated or cooled by a hot or cool medium on a continuous basis. Kreis, therefore, does not teach the limitation of opening a feed passage of a rotor when the speed of the rotor is below a predetermined value as claimed. Accordingly, Claim 18 is in condition for allowance.

Claim 20 was amended to recite a method of heating a rotor of a turbo-machine having a compressor, comprising flowing a fluid for heating the rotor flows through the turbo-machine rotor during a start-up operation carried out before the load operation of the turbo-machine, and preventing a fluid flow through the rotor during the load operation of the turbo-machine. Kreis is wholly silent to the above limitations. Instead, as discussed above, Kreis merely states that “the shaft is conditioned by means of a system of internal conduits with a hot or cold medium.” This general statement by Kreis fails to disclose the specific claimed elements of flowing a fluid for heating the rotor...during a start-up operation carried out before the load operation of the turbo-machine and preventing a fluid flow through the rotor during the load operation of the turbo-machine as required by amended Claim 20. Accordingly, Claim 20 is in condition for allowance.

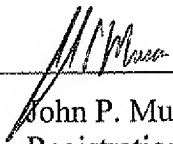
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Conclusion

The commissioner is hereby authorized to charge any appropriate fees due in connection with this paper, or credit any overpayments to Deposit Account No. 19-2179.

Respectfully submitted,

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By: 
John P. Musone
Registration No. 44,961
(407) 736-6449

Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, New Jersey 08830